

Docket No.: P-0239

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of :

Woon Jin JUNG :

Serial No. New U.S. Patent Application :

Filed: August 31, 2001 :

For: JITTER REDUCING APPARATUS USING DIGITAL MODULATION  
TECHNIQUE

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

Prior to initial examination on the merits, please amend the above-identified application  
as follows:

**IN THE SPECIFICATION:**

Please amend the specification by replacing paragraphs as follows:

**A. Specification Paragraphs With Mark-ups to Show Changes Made**

The following are mark-ups to show changes made to paragraph 27 starting at  
page 6, and ending at page 7:

[27] ES 1 is a buffer that stores data flowing in from the SDH network, having a size of  
8 bytes (width) x 32 (depth). Modulation sequencer 7 generates a mode-value signal and a  
mode-slope signal representing a modulation frequency having a certain period and amplitude  
and applies these signals to the phase level detector 2a. The phase level detector 2a compares

an offset (i.e., difference) value of the WAD[4:0] and RAD[4:0] signals of ES 1 to a preset reference value and controls the pattern generator 3 with the digital modulation frequency applied from the modulation sequencer 7. The operation of the phase level detector 2a is described more fully below.

**The following are mark-ups to show changes made to paragraph 31 starting at page 7 and ending at page 7:**

[31] The WAD[4:0] and RAD[4:0] signals are comprised of five bits and the Mode value[1:0] signal has two bits. The arithmetic operation produces a five bit result having a value [The result value of the operation is] in the range of 0~31. If the result value is between 0 and 15, the phase level detector 2a outputs '0' (H/L Req signal). If the result value is between 16 and 31, the phase level detector 2a outputs '1' (H/L Req signal), to control the pattern generator 3.

**After paragraph 31, insert the following new paragraph:**

[New] The phase level detector 2a operation has the following effect. If the difference between the WAD[4:0] and RAD[4:0] signals is small, that is if the result of the arithmetic operation is a value between zero and fifteen, then only a small amount of data has been stored in ES 1 and, thus, the output rate of the buffered data should be decreased. On the other hand, if the difference between the WAD[4:0] and RAD[4:0] signals is large, that is if the result of the arithmetic operation is a value between sixteen and thirty-one, then a large amount of data has been stored in ES 1 and the output rate of the data should be increased.

**B. Clean Specification Changes**

**Please replace paragraph 27 starting at page 6, and ending at page 7 with the following:**

[27] ES 1 is a buffer that stores data flowing in from the SDH network, having a size of 8 bytes (width) x 32 (depth). Modulation sequencer 7 generates a mode-value signal and a mode-slope signal representing a modulation frequency having a certain period and amplitude and applies these signals to the phase level detector 2a. The phase level detector 2a compares an offset (i.e., difference) value of the WAD[4:0] and RAD[4:0] signals of ES 1 to a preset reference value and controls the pattern generator 3 with the digital modulation frequency applied from the modulation sequencer 7. The operation of the phase level detector 2a is described more fully below.

**Please replace paragraph 31 starting at page 7, and ending at page 7 with the following:**

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**After paragraph 31, insert the following new paragraph:**

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**REMARKS**

Claims 1-10 are pending. The specification has been amended to further clarify the invention. Prompt examination and allowance in due course are respectfully solicited.

Respectfully submitted,  
FLESHNER & KIM, LLP



Daniel Y.J. Kim  
Registration No. 36,186  
David W. Ward  
Registration No. 45,198

P.O. Box 221200  
Chantilly, VA 20153-1200  
703 502-9440 DYK.DWW/kam  
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